

II. REMARKS

Claims 1, 33-34, 36-41, and 43-61 are pending in the instant application. All of these stand rejected on various grounds. More particularly, the examiner rejects claims 1, 34, 40, 41, and 44-49 under Section 102(b) as being anticipated by Iorio '223; claims 33, 36-39, 43, and 50-61 are rejected under Section 103(a) as being obvious over the combination of Iorio '223 in view of Hokamura '445. Applicant respectfully disagrees with the rejections, for the reasons particularized below.

Turning first to the rejection over Iorio '223, the examiner contends that the prior art teaches a metal tube (52) having a zinc layer (54) bonded thereto, a surface treatment layer (56) of chromate or phosphate, a "priming layer" (58) made of nylon which is "inherently capable of being sprayed", and first and second polymeric layers (60, 62).

Even accepting, *arguendo*, the examiner's characterization of the nylon bonding layer (58) of Iorio '223 as constituting a "priming layer" for the subsequent polymeric layers, it is beyond argument that that bonding layer does not comprise a phenolic coating, as instantly claimed.

Notwithstanding the foregoing, Applicant further disputes the examiner's contention that the so-called "priming layer" of Iorio '223 is "inherently capable of spray application."

In order to anticipate by "inherency," the prior art reference relied on by the Patent Office must "necessarily [function] in accordance with, or [include], the claimed limitations....." MEHL/Biophile Int'; Corp. v. Milgraum, 52 USPQ2d 1303 (Fed. Cir.

1999). Inherency is a question of fact, and “may not be established by mere probabilities or possibilities.” In re Oelrich, 212 USPQ 323 (CCPA 1981).

In this instance, the examiner offers *no* evidence whatsoever to support the legally implicit contention that the “bonding layer” of Iorio ‘223 is “*necessarily*” capable of spray application. And the prior art, disclosing as it does application of the “bonding layer” by *extrusion*, offers no plausibility to the examiner’s naked assertions. Inasmuch as the examiner appears to be engaging in nothing more than speculation as to a mere possibility or probability, Applicant respectfully submits that inherency has not been established.

Turning next to the rejection over Iorio ‘223 in view of Hokamura ‘445, it is the examiner’s position that Iorio ‘223 teaches all aspects of the invention as claimed except for the priming layer comprising one or more phenols or carbolic acid. This deficiency is asserted to be made up by Hokamura ‘445, which, the examiner contends, discloses a “primer layer [that] can include polyamides which are nylons and can contain phenols and carbolic acids....” Official Action, pp. 3-4. From this, the examiner posits, “[i]t would have been obvious...to modify the primer layer in Iorio et al by providing phenols and carbolic acid to give the primer layer better adhering properties for connecting plastic layers to metal layers as suggested by Hokamura.” *Id.* For the following reasons, Applicant respectfully disagrees.

A *prima facie* case of obviousness *requires* that there be “some suggestion or motivation, either in the references themselves or in the knowledge generally available to one

of ordinary skill in the art, to modify the reference or to combine reference teachings." See MPEP § 2143; *see also* In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1998); and In re Jones, 21 USPQ2d 1941 (Fed. Cir. 1992). Indeed, without motivation, it is irrelevant that the references *may* separately teach each and every element of the claimed invention. See In re Rouffet, 47 USPQ2d 1453 (Fed. Cir. 1998).

It is not enough to provide conclusory statements respecting a supposed motivation to combine. "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination." MPEP § 2143.01 (*citing* In re Mills, 16 USPQ2d 1430 (Fed. Cir. 1990)(*emphasis original*)). On the contrary, "[t]he factual inquiry to combine references must be thorough and searching," In re Sang Su Lee, 61 USPQ2d 1430 (Fed. Cir. 2001)(*quoting* McGinley v. Franklin Sports, Inc., 60 USPQ2d 1001 (Fed. Cir. 2001)); "[p]articular findings must be made as to the reason the skilled artisan, ***with no knowledge of the claimed invention***, would have selected these components in the manner claimed." *Id.* (*quoting* Brown & Williamson Tobacco Corp. v. Phillip Morris Inc., 56 USPQ2d 1456 (Fed. Cir. 2000)(*emphasis added*)).

Even accepting, *arguendo*, the examiner's reading of the references insofar as the teachings they contain are concerned, Applicant submits that there is a want of motivation to combine the teachings of Iorio '223 and Hokamura '445 in the manner argued.

Hokamura '445 teaches a comprehensive, two-step process for forming a corrosion-resistant coating, as exemplified in claim 1 of that patent:

“A process for forming a corrosion resistant coating, which comprises (i) a step of priming a solvent-type coating composition on a corrodible substrate and drying it to form a prime coat, and (ii) a step of coating a radical-polymerizable, and oxidation-polymerizable, room temperature curing solventless coating composition on the dry prime coat and polymerizing it to form a cured coating....”

According to Hokamura '445, the solvent-type coating composition component contains a volatile organic solvent and is selected from the group consisting of a boiled drying oil coating composition, an alkyd resin coating composition, an epoxy resin coating composition, a polyurethane resin coating composition, a chlorinated rubber coating composition and a vinyl resin coating composition....,” *id.*, while the radical-polymerizable and oxidation-polymerizable, room temperature curing solventless coating composition component “is composed essentially of a curing catalyst and a resin component comprising (A) from 30 to 70% by weight an oil-modified alkyd resin having an oil length of from 30 to 70% and modified with an α,β -unsaturated monocarboxylic acid selected from the group consisting of sorbic acid, crotonic acid and 2-(β -furyl) acrylic acid, the content of the α,β -unsaturated monocarboxylic acid in the alkyd resin being from 0.5 to 30% by weight, and (B) from 70 to 30% by weight of a polymerizable monomer in which the ingredient (A) is dissolved.” *Id.*

In operation, the above coating composition is taught to be applied as follows: First, the “solvent-type primer coating composition is applied to a substrate with its surface preliminarily cleaned or coated with a shop primer.” Col. 6, lines 46-48. This application step may be by “brush coating, spray-coating, or air-less spray coating....” *Id.*

at lines 50-53. Next, "the applied coating composition is dried at room temperature or by an accelerated drying operation." *Id.* at lines 49-50. Thereafter, the solventless coating composition is applied over the prime coat, again "by brush coating, spray coating or air-less spray coating," and dried at room temperature or by an accelerated drying operation. Col. 10, lines 20-32, and col. 7, lines 3-5.

Notably, no further materials are taught to applied over the above-described coating system, including any thermoplastics. Nor does Hokamura anywhere suggest that the coating system thereof serves as a primer for any type of material, including thermoplastics. Lastly, Hokamura provide *no* examples where only one or the other of the solvent-type coating composition and solventless coating composition are employed separately.

Iorio '223 describes an extruded multiple plastic layer coating bonded to the outer surface of a metal tubing. More particularly, Iorio '223 discloses a metal tube having the following layers (shown also in FIG. 1, reproduced below):

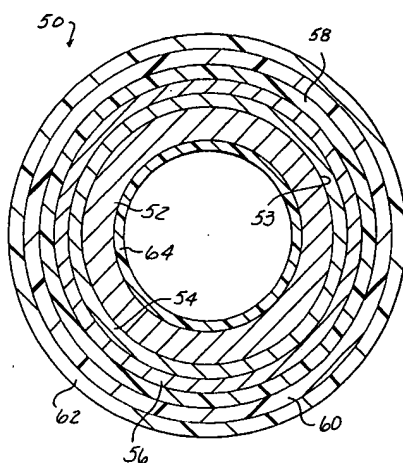


FIG. 1

A zinc layer (54) bonded to the outer surface of the metal tube (52), a surface treatment layer (56) bonded to the zinc layer (54), a first polymeric layer (58) bonded to the surface treatment layer (56), a second polymeric layer (62) bonded to the first polymeric layer (58), and, optionally, a third intermediate layer (60) interposed between and bonded to the first and second polymeric layers. *See* col. 16, line 22 - col. 17, line 40.

Each of the first and second polymeric layers are taught to comprise polymers selected from the group consisting of thermoplastic elastomers, ionomers, polyamides, fluoropolymers, and mixtures thereof. The (optional) third polymeric layer is taught to comprise polymers selected from the group consisting of ionomers, polyamides, ethylene vinyl alcohols, polyolefins, and mixtures thereof. *See* col. 17, lines 15-30.

Finally, Iorio '223 teaches that each of the first, second, and (optional) third polymeric layers are co-extruded or, less preferably, applied by cross-head application

(i.e., the layers are applied synchronously), following preheating of the tube to between approximately 375° and 450° F. *See* col. 15, lines 20-46.

Given especially that Hokamura teaches a two-part corrosion-resistant coating system comprising *no* thermoplastics, which is brush or spray applied, and which is nowhere taught to act as a primer for thermoplastics, Applicant fails to understand how one of ordinary skill in the art would have been motivated, particularly in the uncertain art of chemistry, to have substituted such a coating system for, or applied such a coating system to, the extruded thermoplastic layer (58) of Iorio '223 for use in the multi-layered tube thereof. There is certainly *no* suggestion in Hokamura that the coating system thereof would serve as a primer for subsequent thermoplastic materials (and though the examiner apparently asserts otherwise, no explicit reference is made for the source of this claim). Nor, by virtue of the fact that Hokamura recites a room-temperature curing, solventless coating composition, can Applicant accept the argument that one of ordinary skill would have been motivated to employ such a coating in the process taught in Iorio, wherein the thermoplastic "priming layer" is extruded onto a tube heated to up to approximately 450° F. Indeed, Applicant submits that the vast differences in these two reference teachings are so apparently incompatible as to actually teach away from any combination.

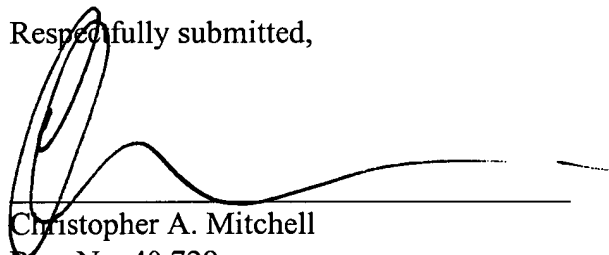
The base claims being patentable over the cited art, Applicant respectfully submits that the examiner's rejection of the remaining claims is rendered moot. This fact notwithstanding, Applicant notes that the art of record, taken alone or in any permissible

combination, fails to either anticipate or render obvious the invention of claims 32-49, or 51-61. Should the examiner maintain the rejections to the claims, Applicant reserves the right to place the claims in allowable form, and/or argue the rejections.

III. CONCLUSION

In light of the foregoing amendments, Applicant respectfully submits that the instant case stands in condition for immediate allowance. Of course, the examiner is invited to contact Applicant's undersigned counsel at (734) 662-0270 with any questions respecting this paper, or if a telephone interview might otherwise expedite prosecution of this case.

Respectfully submitted,



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